

## CLAIMS

What is claimed is:

1. A system for displaying visual information, comprising:

a display element;

5 said display element having means of retaining an array element address;

said display element having means of comparing said address with a received  
signal;

said display element adapted to extract a display setting upon finding an address  
match;

said display element adapted to provide a display output according to the  
extracted display setting;

a display element controller;

said display element controller adapted to generate a signal to a plurality of  
connected said display elements; and

15 said display element controller adapted to generate a signal containing a  
sequence of display settings in an ordered pattern consistent with the addressing of  
said array elements.

2. A system as recited in claim 1, wherein the means for retaining an array

20 element address comprises cells of a non-volatile memory.

3. A system as recited in claim 1, wherein the means of comparing address

comprises a comparator which compares the present address within the received signal to an address retained within the display element.

4. A display element for use in a display array which receives at least one display signal containing a series of display setting values for the elements within the array, comprising:

a digital circuit for retaining an address value;

an address comparison circuit for comparing the retained address with the received signal;

an data store which extracts a display setting from the display signal upon an address match being detected; and

a visual output which is set in response to the extracted display setting.

5. A controller for the display element recited in claim 4.

6. A method of driving display elements, comprising:

generating a display signal containing a series of display settings in a pattern from which a display element address may be determined;

transmitting said signal to an array of synchronous display element;

receiving said signal within a synchronous display element;

detecting an address match for the display element within the signal;

extracting the display setting from the signal for the display element; and

outputting a display setting in response to the extracted display setting.

7. A method of programming an array address within an element of an array, comprising:

- 5        configuring display elements with an optical detector
- configuring display elements with a non-volatile section of memory for retaining an address;
- optically coupling a programming array to the array of display elements;
- engaging the address programming for the displaying elements; and
- loading the address embedded within the signal in response to the detection of sufficient light input.

8. A display array having a plurality of multiple display elements which are individually addressable by an attached controller, comprising:

- 15        (a) an array support member configured with power and ground connections;
- (b) a controller operatively coupled to the power and ground connections of said array support member and capable of applying a voltage between the power and ground connections, wherein the controller is further capable of superimposing data signals on said voltage; and
- 20        (c) a plurality of display elements operatively connected to the power and ground of said support member, each display element being configured to extract the data signals from the voltage provided by the controller, wherein a display element,